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BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

ORIGINAL

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DOD's Unaccompanied Enlisted Personnel Housing--Better Living Conditions And Reduced Costs Possible

GAO reviewed unaccompanied enlisted personnel housing at nine installations and found that the military services were

--providing some accommodations which were below DOD's minimum standards of adequacy at seven installations,

--incurring unnecessary off-base housing costs,

--planning questionable housing projects at four installations, and

--modernizing facilities unnecessarily.

GAO believes that DOD can improve the overall living conditions of its unaccompanied enlisted personnel and reduce the cost of providing adequate housing. GAO makes recommendations to assist in achieving these objectives.

PLRD-82-59
APRIL 30, 1982

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the Department of Defense's efforts to provide housing to unaccompanied enlisted personnel. We made the review to determine if the Department is providing adequate housing in an efficient manner and if construction and modernization requirements are justified.

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Defense.

Charles A. Bowsher

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

DOD'S UNACCOMPANIED ENLISTED PERSONNEL HOUSING--BETTER LIVING CONDITIONS AND REDUCED COSTS POSSIBLE

D I G E S T

The Department of Defense (DOD) received about $1.1 billion in appropriations during the past five fiscal years to construct or modernize unaccompanied enlisted personnel housing (formerly bachelor enlisted quarters). Despite these sizable appropriations, DOD reported to the Congress in February 1981 that it had a personnel housing deficit of approximately 300,000 spaces.

In addition to spending sizable amounts for new construction and modernization of personnel housing, DOD pays millions of dollars each year to house unaccompanied personnel in non-Government quarters. In view of the large amounts DOD is spending on housing its unaccompanied enlisted personnel, GAO made this review to evaluate the military services'

--efforts to provide personnel adequate housing,

--efforts to control off-base housing costs,

--computations of personnel housing requirements, and

--personnel housing modernization policies, procedures, and practices. (See pp. 1 and 2.)

GAO found opportunities for the military services to more efficiently use existing unaccompanied enlisted personnel housing assets, more accurately determine housing deficits, and control modernization costs. In addition, GAO believes DOD can substantially reduce its off-base housing costs, as well as its construction and modernization costs, and provide better housing to its unaccompanied personnel. (See pp. 11, 22, 33, and 41.)

Tear Sheet

PLRD-82-59
APRIL 30, 1982

PROBLEMS IN UNIFORMLY AND ADEQUATELY HOUSING PERSONNEL

DOD has established minimum standards of adequacy for housing unaccompanied enlisted personnel and criteria for constructing new facilities. These standards and criteria apply to the amount of space each person is to receive, the maximum number of persons to occupy a room, and the type of bath facilities to be provided.

The services have not uniformly adopted or implemented DOD's standards and criteria. As a result of this and the fact that DOD has a mixture of new and old housing for unaccompanied enlisted personnel, the accommodations a servicemember receives may vary widely within and among the services. (See pp. 4 to 8.)

Seven of the nine installations GAO visited provided servicemembers accommodations that were below DOD's minimum standards of adequacy. Although some installations simply lacked adequate housing facilities, other installations could have provided adequate accommodations through better management of their housing facilities. (See pp. 8 to 11.)

OFF-BASE HOUSING COSTS CAN BE REDUCED

Inefficient utilization of unaccompanied enlisted personnel housing facilities at seven of the nine installations resulted in unnecessary off-base housing costs. For example, Eglin Air Force Base followed a practice called "unit integrity" (i.e., blocks of space are assigned to organizational units and later the units assign personnel to the spaces). As a result of using unit integrity from April 1980 through March 1981, the base authorized personnel to live off base at a cost of $298,000 because their units' spaces were full even though other spaces were available on base.

DOD is attempting to improve personnel housing information for more efficient management by requiring the services to periodically report their housing inventory, occupancy, and utilization. However, GAO believes that the data DOD requested will not provide a complete or accurate picture of housing capabilities. (See pp. 13 to 19.)

GAO also believes that the services could further reduce off-base housing costs by

--requiring installations to use underutilized facilities at other nearby installations and

--constructing new facilities before modernizing existing ones, when both types of projects are planned, to minimize the need to house personnel displaced during modernization off base.

In addition, in order to reduce off-base housing costs, GAO believes the Air Force should be required to lower its standards for certain personnel to DOD's minimum standards. (See pp. 19 to 22.)

REPORTED INACCURATE HOUSING DEFICITS CAUSING UNNECESSARY CONSTRUCTION

DOD has reported to the Congress that it has a requirement to construct or modernize approximately 300,000 spaces for unaccompanied enlisted personnel. However, the nine installations GAO visited overstated the number of personnel needing housing by 1,600, understated the capacity of existing adequate housing by 1,700 personnel, and reported another 3,200 adequate spaces as substandard. As a result, the nine installations' reported requirement to construct 6,500 housing spaces was overstated by about 102 percent. (See pp. 25 to 32.)

Additionally, the deficits were overstated because

--the Navy did not consider berthing barges as housing assets and

--underutilized facilities at a nearby installation were not considered. (See pp. 32 and 33.)

GAO believes that four construction projects could be either eliminated or reduced in scope at an estimated savings of $20 million. (See p. 33.)

POSSIBLE MODERNIZATION SAVINGS

The Army and Air Force are unnecessarily modernizing some facilities. In particular, the three Air Force bases GAO visited had projects to add private or semi-private bathrooms to existing facilities even though the facilities already met DOD minimum standards of adequacy. Additionally, the Air Force did not consider additional off-base housing costs in the project justifications. (See pp. 36 to 40.)

RECOMMENDATIONS TO THE SECRETARY OF DEFENSE

To improve the management of DOD's unaccompanied enlisted personnel housing program, the Secretary of Defense should:

--Revise DOD's inventory, occupancy, and utilization reporting requirements so that program managers receive accurate information and require the services to implement the reporting requirements in a timely manner. (See p. 23.)

--Redirect the services to uniformly adopt and implement DOD's minimum standards of adequacy for assigning personnel to existing adequate housing. In the case of the Air Force, it would mean lowering the standards for certain personnel to DOD's minimum standards, which would reduce off-base housing costs. (See p. 23.)

--Direct the services to thoroughly review the unaccompanied enlisted personnel housing deficits for currently programed, funded, and/or planned construction projects and cancel, where economical to do so, unneeded projects. (See p. 34.)

Additional recommendations to the Secretary are contained on pages 23, 34, and 41.

AGENCY COMMENTS

GAO discussed this report with DOD on February 8, 1982. By letter dated March 5, 1982, DOD generally agreed with most of GAO's recommendations and forwarded to the services a list of specific corrective actions they should take. (See app. IV.)

DOD did not agree with GAO's recommendations that (1) the Navy consider berthing barges as assets available to meet housing requirements (see p. 34) and (2) the Air Force not be authorized to add private or semiprivate bathrooms to facilities that already meet DOD's standards of adequacy (see p. 41). GAO continues to believe its recommendations are appropriate.

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ABBREVIATIONS

BAQ	basic allowance for quarters
DOD	Department of Defense
GAO	General Accounting Office
UEPH	unaccompanied enlisted personnel housing
VHA	variable housing allowance

CHAPTER 1

INTRODUCTION

The Department of Defense (DOD) has a policy to provide Government housing to unaccompanied enlisted personnel. The military considers the quality of housing an important factor in recruiting and retaining personnel. For example, in a February 27, 1980, statement before the Subcommittee on Military Construction, House Committee on Appropriations, the Deputy Assistant Secretary of Defense (Installations and Housing) 1/ said that unaccompanied personnel housing was one of the most important and vital requirements of DOD's construction program. DOD believes that improved housing will provide both immediate and long-range benefits through increased reenlistment, heightened morale, and reduced recruitment costs.

The Deputy Assistant Secretary of Defense (Facilities, Environment, and Economic Adjustment) is responsible for establishing policy and issuing implementing instructions on unaccompanied personnel housing. The military departments and defense agencies budget for and have the responsibility for program execution and all management functions of their individual programs.

DOD has programed large amounts to construct unaccompanied enlisted personnel housing (UEPH) and can be expected to continue programing large amounts. For fiscal years 1978 through 1982, the Congress appropriated about $1.1 billion to construct or modernize UEPH. Despite requesting funds over this period to construct or modernize about 84,000 spaces (see app. I), DOD reported to the Congress a deficit of approximately 300,000 UEPH spaces as of February 1981.

When adequate on-base housing is not available, personnel in pay grades E-1 through E-6 are authorized to live off base at Government expense. Personnel in pay grades E-7 through E-9 have the option to live either in Government quarters or off base whether adequate Government quarters are available or not. Permanently assigned unaccompanied enlisted personnel (permanent party) authorized to live off base and personnel in pay grades E-7 through E-9 living off base receive a monthly cash allowance in lieu of Government housing. This allowance is called a basic allowance for quarters (BAQ). For fiscal year 1980, the services paid $197.9 million in BAQ to unaccompanied enlisted personnel. Additionally, beginning in fiscal year 1981, personnel authorized BAQ were also paid a variable housing allowance (VHA) when they lived in a high cost area. Servicemembers without dependents who are not entitled to BAQ because they occupy UEPH or because they are on field or sea duty are also paid a partial BAQ.

1/DOD has since changed this title to Deputy Assistant Secretary of Defense (Facilities, Environment, and Economic Adjustment).

The monthly BAQ, VHA (for locations visited during this review), and partial BAQ rates for personnel in selected pay grades are listed in appendix II.

Transient personnel authorized to live off base receive a daily allowance (the quarters portion of per diem) or are assigned to commercial facilities under Government contract. The services do not accumulate information on the portion of per diem paid to house transient enlisted personnel or on the amounts paid for contract quarters.

OBJECTIVE, SCOPE, AND METHODOLOGY

To assess DOD's management of its UEPH program, we evaluated

--the services' efforts to provide personnel adequate quarters and to control BAQ and per diem payments,

--the computation of UEPH construction requirements, and

--UEPH modernization practices.

We reviewed DOD, Army, Navy, Marine Corps, and Air Force regulations, directives, and records. We performed work at the nine installations listed in appendix II and also did limited work at Fort Bragg, North Carolina, and Charleston Air Force Base, South Carolina.

At the activities we reviewed instructions, regulations, and correspondence related to UEPH management; reviewed UEPH utilization reports and justifications for UEPH construction and modernization projects; and held discussions with knowledgeable officials. We performed our work in accordance with our current "Standards for Audit of Government Organizations, Programs, Activities, and Functions."

We visited activities that had programed or planned construction or modernization projects, and/or a record of BAQ or per diem payments. Since we did not select the sample on a statistical basis, we cannot project the results DOD-wide. However, because some of the identified problems are the result of servicewide practices, we believe the results are indicative of the situation at other locations.

We based the annual BAQ and VHA savings on BAQ and VHA (when applicable) costs minus partial BAQ. We used the rates for personnel in pay grade E-3 in order to provide a conservative savings estimate.

PRIOR REPORTS

In our 1976 report, 1/ we stated that DOD incurred unnecessary BAQ and/or per diem costs due to inefficient UEPH management and lack of adequate records. An internal DOD report 2/ discussed inaccurate determination of UEPH requirements.

DOD has taken steps to try to correct many of the problems identified in these reports. In 1977 DOD issued an instruction (1) assigning installation commanders the responsibility of managing UEPH and (2) specifying that a centralized management system be used for

--developing and implementing rules and regulations;

--assigning and terminating BAQ payments;

--utilizing assets and preparing inventory, occupancy, and utilization reports;

--reviewing reports on housing costs, maintenance, and performance; and

--making unaccompanied personnel housing requirements surveys and developing program data.

DOD's 1977 instruction also gave guidance on such areas as minimum standards of adequacy, utilization rates for permanent party and transient housing, occupancy of inadequate and substandard quarters, priority of assignment to UEPH, and unit integrity.

In May 1978 DOD also issued guidance to its components on preparing the UEPH military construction program for fiscal year 1980. The guidance established procedures intended to correct problems identified in the Defense Audit Service report on determining UEPH construction requirements.

1/"Savings Possible Through Better Management of Quarters for Enlisted Personnel" (LCD-76-327, June 28, 1976).

2/Defense Audit Service Report Number 872, "Report on the Audit of Housing Requirements for Bachelor Enlisted Personnel" (Mar. 28, 1978).

CHAPTER 2

PROBLEMS IN UNIFORMLY AND ADEQUATELY HOUSING UNACCOMPANIED ENLISTED PERSONNEL

Although DOD has established minimum standards of adequacy in terms of space, bath facilities, and type of construction for housing unaccompanied enlisted personnel and has issued criteria for constructing new UEPH facilities, the standards and criteria have not been uniformly adopted and implemented among the services. As a result of this non-uniform implementation and the mixture of new and old assets in DOD's UEPH inventory, substantial differences exist among and within the services in the quality of housing provided unaccompanied enlisted personnel. Additionally, seven of the nine installations we visited were not adequately utilizing their UEPH assets and/or lacked adequate assets. As a result, we noted instances of personnel housed below the DOD minimum standards of adequacy at the seven installations.

Concern over both the apparent imbalance between the services in meeting adequate housing standards and in the type of living conditions provided unaccompanied personnel was expressed by the House Committee on Appropriations in its reports on the Military Construction Appropriations bills for fiscal years 1981 and 1982 (H. Rept. 96-1097, June 17, 1980, and H. Rept. 97-193, July 23, 1981).

UEPH STANDARDS

In 1972 DOD issued DOD Instruction 4165.47, which established minimum standards of adequacy for housing permanent party and transient unaccompanied enlisted personnel. The standards prescribed by pay grade the amount of space each person would receive, the maximum number of persons to occupy a room, and the type of bath facilities to be provided. All housing facilities were to be of a permanent or semipermanent construction. These standards are summarized in the following table.

	Permanent party personnel			Transient personnel		
Pay grade	Square feet per person	Person(s) per room	Type of bath	Square feet per person	Person(s) per room	Type of bath
E-1 through E-4	90	4	central	90	(a)	central
E-5 and E-6	90	2	central	90	4	central
E-7 through E-9	b/200	1	private	100	1	central

a/Persons are housed in an open bay, not a room.

b/The square footage for E-7s through E-9s includes space for bathrooms whereas the square footage for lower grades does not.

The instruction stipulated that the square footage for E-1 through E-4 personnel was an approximate standard and that spaces would be considered adequate if they contained 85 square feet per person. Additionally, quarters built in the fiscal year 1970 and subsequent construction programs, which were designed to house E-1s through E-4s at 80 to 90 square feet, would continue to be considered as adequate. The instruction also stated that the transient standards were interim standards and that it was DOD's policy for transients to be housed at permanent party personnel standards as soon as practical.

In the 1972 instruction, DOD also authorized the Marine Corps to house its E-6 personnel at the E-7 through E-9 standard. According to a DOD Manpower, Reserve Affairs, and Logistics official, DOD authorized the Marine Corps to do so because the Marine Corps' E-6 personnel have responsibilities similar to those of E-7 through E-9 personnel in the other services.

Since 1972 the standards have changed little. In 1977 DOD dropped the exception regarding facilities built in the fiscal year 1970 and subsequent construction programs, and in 1980 established 85 square feet as the minimum standard for E-1 through E-4 permanent party and transient personnel. The standards for transient personnel have not been upgraded to the permanent party personnel level.

SERVICES STILL TO ADOPT DOD MINIMUM STANDARDS

As of July 1981 none of the services had revised their procedures and practices to reflect DOD's July 1980 revision to E-1 through E-4 standards. Further, the Army has yet to revise its procedures and practices to reflect DOD's 1977 change which dropped the exception allowing E-1s through E-4s to be adequately housed with as little as 80 square feet each. Marine Corps standards also allow E-5 personnel to be adequately housed in as little as 85 square feet instead of 90, as prescribed under DOD standards.

The Air Force, on the other hand, has established standards for E-1s through E-6s above those prescribed by DOD. Air Force standards limit the number of E-1s through E-4s that can be housed in one room to three in lieu of four under DOD standards, 1/ and provide E-5s and E-6s 135 square feet of living area instead of 90.

1/According to an Air Force headquarters official, the Air Force has very few rooms capable of housing four personnel in pay grades E-1 through E-4.

According to headquarters officials of all the services, they are revising their instructions to comply with DOD guidance for E-1 through E-4 personnel. A DOD official attributed the delay in implementing the latest DOD instruction to the services' instruction review processes. However, the Marine Corps does not plan to increase its standards to provide E-5 personnel 90 square feet of living area because housing capacity would be lost. The Air Force does not plan to lower its standards for E-5 and E-6 personnel. (See p. 21.)

NEW CONSTRUCTION CRITERIA PROVIDE HIGHER STANDARDS

In 1971 DOD issued criteria for sizing new UEPH facilities to be constructed which generally provide higher living standards than the prescribed minimum standards of adequacy. As shown in the following table, personnel are generally entitled to more net living area and the number of personnel, E-6 and below, sharing bathroom facilities is less.

Pay grade	Net living area		Bathroom facilities	
	Minimum standards of adequacy	New construction	Minimum standards of adequacy	New construction
	---------(square feet)---------			
E-1 through E-4	85	a/85-90	central	shared by 3 people
E-5 and E-6	90	127.5-135	central	shared by 2 people
E-7 through E-9	b/200	b/255-270	private	private

a/Under new construction criteria personnel in pay grades E-1 are housed in open-bay facilities with a minimum net living area of 72 square feet.

b/The net living area under the minimum standards of adequacy includes bathroom area, whereas the net living area under new construction does not.

According to a DOD Manpower, Reserve Affairs, and Logistics official, DOD does not have its inventory of UEPH assets categorized by those that do and do not meet new construction criteria. However, since 1971 DOD has requested funds to construct or modernize about 338,000 UEPH spaces. DOD estimated its total UEPH inventory consists of 800,000 spaces.

Because a substantial number of DOD's UEPH spaces were in existence before the current construction criteria, DOD

established the minimum standards of adequacy to avoid designating a large portion of its UEPH inventory as inadequate. We estimate that it would cost over $4 billion to replace DOD's estimated existing inventory. In addition, we believe DOD's minimum standards provide adequate living conditions. Therefore, we believe DOD's decision was appropriate.

AIR FORCE TWO-PERSON UEPH DESIGN CREATES DIFFERENT HOUSING LEVELS

Since the early 1950s, the Air Force has stressed the importance of occupant privacy in designing UEPH. While the other services were building mostly open-bay barracks, the Air Force was building dormitories with three-person rooms, allowing 72 net square feet of space per occupant. When DOD increased the net living area standard to 85 square feet for E-1 through E-4 personnel in 1971, the Air Force lowered the capacity of its three-person rooms to two persons. Recognizing this two-person configuration for the Air Force's existing housing, DOD has allowed the Air Force to design and build new facilities for personnel in pay grades E-1 through E-4 with no more than two occupants per 180-square-foot room, provided that costs remain within the statutory limit and DOD's square-foot-per-person criteria. The Air Force also builds 270-square-foot rooms for personnel in pay grades E-5 and above.

The Air Force has a policy to build new UEPH for personnel in pay grades E-1 through E-4 only and to house higher graded enlisted personnel off base, but allows an exception for locations where adequate off-base housing is not available.

Although the Air Force intends its two-person 180-square-foot rooms to house two persons in pay grades E-1 through E-4, we noted instances where those rooms were used to house either one or two persons in pay grades E-5 and E-6 or one person in pay grades E-7 through E-9. We also noted that two installations use suites of two rooms and the connecting bathroom to house transient personnel in pay grades E-7 through E-9. Such practices result in higher graded personnel assigned to two-person rooms receiving either more or less space than provided for under DOD's new construction criteria or receiving either the exact amount or more space than called for under DOD's minimum standards of adequacy. These differences are shown in the table on the following page.

Pay grade	More or (less) space than provided under DOD new construction criteria (note a)		Minimum standards of adequacy	
	Square feet	Percent	Square feet	Percent
E-5 and E-6 (one to a 180-square-foot room)	45	33	90	100
E-5 and E-6 (two to a 180-square-foot room)	(45)	(33)	0	0
E-7 through E-9 (one to a 180-square-foot room, note b)	(90)	(33)	c/80	80
E-7 through E-9 (one to two 180-square foot rooms, note b)	90	33	c/260	260

a/Based on the maximum square footage allowed.

b/Excludes bathroom space.

c/Based on minimum standards for transient personnel.

The Air Force's two-person, 180-square-foot room design UEPH had semiprivate bathrooms with provisions for conversion to private bathrooms. However, in its 1980 UEPH design guidance, the Air Force adopted a new design that called for semiprivate bathrooms without provisions for converting to private ones because of cost limitations. Thus, by building two-person rooms with semiprivate bathrooms (one bathroom shared by four persons) the Air Force will not be meeting the DOD construction criteria of providing one bathroom for use by three personnel in the lower pay grades.

SERVICEMEMBERS INADEQUATELY HOUSED

Servicemembers were housed at levels below DOD's minimum standards of adequacy at seven of the nine installations we visited. The instances of inadequately housed personnel occurred when installations

--provided personnel less living area than DOD minimum standards prescribe,

--housed personnel in temporary structures, and

--housed E-7s through E-9s in rooms without private baths.

The table on the following page summarizes the findings as well as reasons why the situations occurred.

Summary of Personnel Housed at less than DOD Minimum Standards

Installation	Personnel provided less than DOD minimum standards	Personnel housed in temporary structures	Personnel not provided private baths (E-7s through E-9s)	Reasons for not housing personnel adequately
Fort Belvoir, Virginia	x	x		The installation practiced unit integrity and housed senior enlisted in temporary structures to separate them from lower grades.
Fort Rucker, Alabama	x	x		The installation practiced unit integrity and did not have enough adequate facilities.
Redstone Arsenal, Alabama	x			The installation practiced unit integrity.
Naval Air Station, Norfolk, Virginia	x			The installation housed the personnel under crowded conditions when space was not available and later did not correct the situation.
Naval Station, Charleston, South Carolina	x		x	The installation practiced unit integrity for some buildings and did not have enough adequate facilities or facilities with private bathrooms.
Naval Station, Norfolk, Virginia	x			The installation practiced unit integrity and did not properly allocate space between permanent party and transient personnel.
Pope Air Force Base, North Carolina			x	The installation lacked facilities with private bathrooms for permanent party personnel.

Servicemembers not provided minimum living area

At six installations, servicemembers were housed with less net living area than prescribed by DOD minimum standards of adequacy for either permanent or transient personnel. These conditions existed because installations either practiced "unit integrity" (i.e., blocks of space are assigned to organizational units and later the units assign personnel to the spaces) or lacked adequate facilities.

In one example of personnel being inadequately housed because of unit integrity, the Norfolk Naval Station overcrowded 390 transient personnel in two buildings while vacancies existed in other adequate buildings. Two open-bay barracks, for which installation records show a capacity to house 299 transient personnel, had an actual average occupancy of 390 personnel for November 1979 through November 1980. During the same time period, three buildings reserved for precommissioning units, which have a capacity to house 420 personnel, had an average actual occupancy of 343 personnel. According to a Naval Station official, housing precommissioning personnel together is beneficial in that a ship's crew can get acquainted before going aboard ship.

In a second example, at Redstone Arsenal we found that the base housed 524 (mostly students) of its 1,415 unaccompanied enlisted personnel in less space than called for under DOD's minimum standards of adequacy. At the same time, we noted that 43 rooms were vacant and another 126 were underutilized because of unit integrity. According to a base official, such housing conditions for students are required for the base to meet mission and training requirements.

At times the Charleston Naval Station housed personnel in extremely overcrowded conditions. As many as 235 personnel have been housed in a 132-person barrack and 247 in a 196-person barrack. For example, in one barrack four servicemembers were often assigned to a 221-square-foot room, receiving a total of 119 square feet less than if they had been provided 85 square feet each, as DOD standards prescribe.

In spite of the base's housing deficit, existing housing assets were not fully utilized because of unit integrity. For example, the third floor of building 67 (about 68 spaces) was reserved for midshipmen and reserves. Midshipmen use the space from late May to early September and the reserves occupy rooms on weekends. According to the base, housing these people on base is a military necessity.

In addition, the nearby Charleston Air Force Base has about 793 underutilized spaces which could have been used to relieve the overcrowding.

Although installations believed their reasons for practicing unit integrity and not providing personnel adequate housing were

valid, we believe that the validity of those reasons is questionable considering DOD's stated benefits (reenlistment, morale, and recruitment) from improved housing.

Temporary structures are used

Two Army installations, Fort Belvoir and Fort Rucker, still use temporary buildings to house personnel even though DOD's standards, in effect since 1972, require permanent or semipermanent structures for personnel housing. At Fort Rucker, where the problem was most severe, over 1,000 personnel were housed in temporary wooden buildings which were built between 1942 and 1955. Most of the people housed were students undergoing advanced individual training or warrant officer candidates.

Fort Rucker is planning (1) continued use of temporary structures for housing based on its modernization of seven such buildings (see p. 39) and (2) its fiscal year 1984 construction program for new barracks.

E-7 through E-9 personnel are inadequately housed

Two installations were not housing E-7 through E-9 personnel in accordance with DOD adequacy standards in that the installations lacked rooms with private baths. Charleston Naval Station and Pope Air Force Base reported requirements for 59 and 115 E-7 through E-9 personnel, respectively. Charleston Naval Station did not have any rooms with private bathrooms and Pope Air Force Base's UEPH inventory primarily included two-person rooms with central bathrooms. Therefore, the bases were unable to provide those personnel adequate housing.

CONCLUSIONS

DOD has established minimum standards for housing unaccompanied enlisted personnel and criteria for constructing new UEPH facilities. However, the services have not completely adopted the standards. The Air Force builds a different type of UEPH facility than the other services, and DOD's UEPH inventory consists of assets built to new construction criteria and others built before adopting the criteria. As a result, the living conditions of individual servicemembers may vary widely. Because installations inefficiently utilized existing assets and/or lacked enough adequate assets, they housed personnel at levels below DOD minimum standards.

We believe that in the short term, the services can improve the overall living conditions of unaccompanied enlisted personnel by managing their UEPH asssets more efficiently and by adopting and implementing DOD's minimum standards of adequacy. Additionally, we believe that a more accurate determination of UEPH requirements will, in the long run, result in the services obtaining the type and quantity of facilities needed to adequately

house their personnel. We believe that by implementing the recommendations contained in the remainder of this report, DOD will improve the overall living conditions of the military's unaccompanied enlisted personnel.

CHAPTER 3

OFF-BASE HOUSING COSTS CAN BE REDUCED

The military services are not obtaining optimum use of their UEPH assets, and as a result, are incurring unnecessary off-base housing costs at seven of the nine locations we visited. The costs were being incurred because:

--Seven installations were inefficiently utilizing their UEPH assets.

--One installation did not attempt to use underutilized space at a nearby installation.

--Another installation with plans to modernize existing assets and to construct facilities to meet its housing deficit could minimize off-base housing costs by meeting new construction needs first.

--The Air Force has adopted higher minimum standards of adequacy than those established by DOD.

In 1976 we reported to the Congress 1/ that savings in off-base housing costs were possible through better management of DOD's UEPH facilities. We recommended that the Secretary of Defense require the military services to:

--Discontinue use of unit integrity in managing UEPH facilities and use a system which includes centralized management.

--Periodically determine the optimum mix of permanent party and transient personnel space and reallocate space accordingly.

--Improve the reporting on UEPH management.

Our recommendation to discontinue unit integrity was based on the additional off-base housing costs resulting from its use and the fact that our review showed that of over 95,000 personnel assigned to units, only 32 percent actually resided with their units.

In responding to the recommendations, DOD stated that unit integrity is an effective way to satisfy the mission and discipline requirements of many units and therefore would continue its use for some units. DOD also stated that unnecessary costs could be avoided through central control of BAQ and per diem

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1/"Savings Possible Through Better Management of Quarters For Enlisted Personnel" (LCD-76-327, June 28, 1976).

authorizations at the installation level. DOD concurred with our other proposals and agreed to revise instructions to improve UEPH management. DOD revised its UEPH instructions and the services have issued instructions which provide for implementation of DOD's policies. However, improvements are still needed.

IMPROVEMENTS STILL NEEDED IN UEPH MANAGEMENT

Seven of the nine installations we visited were not fully utilizing their existing UEPH assets due to inefficient management. As a result, the installations were incurring unnecessary BAQ and per diem costs.

Unit integrity remains costly

DOD and the services have policies which allow the use of unit integrity, provided the installation achieves maximum space utilization. To preclude payment of BAQ and per diem, DOD specifies that an installation's centralized housing organization is to direct assignment of personnel from outside organizations into unit-managed space.

The unit integrity concept at installations we visited is costing hundreds of thousands of dollars annually to house personnel off base while vacant quarters exist on base. For example, Eglin Air Force Base assigned space on the unit-integrity basis and authorized personnel BAQ when unit commanders reported occupancy of their assigned space to be 95 percent or greater. From April 1980 through March 1981, Eglin's dormitories had a basewide average occupancy rate of 90 percent. During that period, the base had an average of 170 vacancies in its permanent party dormitories. By using those spaces, the base could have saved about $298,000 in BAQ and VHA payments.

During our work at Eglin, the base established a centralized system to manage the assignment of personnel to its dormitories. Under the system, the base would not strictly adhere to unit integrity and would not authorize BAQ until basewide dormitory occupancy was above 95 percent. According to an Eglin official, the change in managing Eglin's UEPH was necessitated by the pending assignment of an additional airwing to the base.

Fort Rucker has a centralized system to authorize BAQ, but because the base does not routinely attempt to house personnel in space not assigned to the individual's unit, the base may have unnecessarily authorized 50 personnel BAQ during fiscal year 1980. Monthly utilization reports for April through September 1980 indicated that some barracks were frequently underutilized. Although the reports indicated that the base had space available to house the personnel authorized BAQ, we were unable to verify this because reports showed occupancy for only 2 days of each month.

Pope Air Force Base incurred $80,000 in unnecessary off-base housing costs from July 1980 to April 1981 due to unit integrity. During the period, the base authorized 101 personnel BAQ. In most every instance, the unit stated that its space was 95 percent full or that the unit needed more space even though the base had an overall 93 percent occupancy rate.

Other management improvements needed

Not reallocating space between unaccompanied permanent party and transient personnel, using housing space for nonhousing purposes, not obtaining optimum use of space, and improperly assigning personnel resulted in unnecessary off-base housing costs.

Reallocating space between permanent party and transient personnel

DOD and service instructions require periodic review of the housing designated for permanent party and transient personnel so that an optimum mix will be attained. We noted that an improper mix at the Norfolk Naval Station contributed to unnecessary per diem costs and overcrowding. Occupancy records revealed that from November 1979 to November 1980, the base had a daily average of 149 vacancies for E-1 through E-9 permanent party personnel. During this same period, the base authorized about 12,000 days of per diem for E-5 and E-6 transient personnel. If the base had reallocated 34 of the permanent party spaces for transients, we estimate that $143,000 in per diem costs could have been avoided.

Diverting UEPH space to other uses

Two installations diverted UEPH space to nonhousing uses and incurred unnecessary off-base housing costs.

Through discussions with Norfolk Naval Station officials and review of UEPH records, we learned that enlisted quarters capable of housing 220 E-1 through E-4 transient personnel had been occupied by Billeting Department maintenance personnel; the Soils Laboratory, Atlantic Division, Naval Facilities Engineering Command; and the base's counseling unit for alcohol and drug abuse. At the time we completed our work at the base, the base had moved the maintenance personnel from the UEPH facilities, but had not found space for the other functions. Between November 1979 and December 1980 the base had authorized 262 E-1 through E-4 personnel to draw per diem for 4,758 days.

Charleston Naval Station uses for office space, one floor of a three-story building authorized and constructed to house unaccompanied enlisted personnel. This diversion of space reduces the number of personnel that can be housed on base by 40. The Station uses the second and third floors of this building to

house personnel being detained for legal reasons. Since the Station felt it was undesirable to house other personnel in the same building as those being detained for legal reasons, they used the first floor (capacity 40 personnel) as office space for legal personnel, educational services, master-at-arms, safety manager, and the Naval Station Auditor.

We agree that it is undesirable to use the space to house personnel not being detained for legal reasons, but we also believe it is undesirable to use it as office space. Further, the annual BAQ and VHA costs for 40 personnel displaced by using the first floor for offices exceed the cost to rent similar office space in the North Charleston area by an estimated $47,000. Not only is this practice costly, but it also results in inaccurate reporting of available housing space.

Optimum use of space not obtained

DOD and Navy instructions require the optimum use of space. At the Norfolk Naval Air Station, we noted that the base had designated 30 rooms capable, under DOD's standards of adequacy, of housing 90 E-1 through E-4 personnel to be used to house 60 E-5 and E-6 personnel. By setting the 30 three-person rooms aside for the E-5 and E-6 personnel, the base decreased its housing capacity by 30 people.

Improperly assigned personnel

DOD assigns personnel who are entitled to dependents' travel and transportation of household goods and are paid BAQ at the with-dependent rate but are separated from their dependents a lower UEPH housing priority than transient and permanent party unaccompanied enlisted personnel. The services have adopted this assignment priority. However, we noted that at the six Navy and Air Force bases visited, about 239 such personnel were housed in UEPH facilities while transient and permanent party unaccompanied enlisted personnel were housed off base at an estimated annual cost of $463,000.

Inaccurate, incomplete, and missing UEPH management data

DOD's instruction covering UEPH management states that the installation's centralized housing function is responsible for the design, implementation, and analysis of management data needed at the various levels of installation and housing management. The instruction emphasizes that the data be current, accurate, complete, and timely.

Generally, the UEPH management data at the installations we visited were either inaccurate, incomplete, or missing. As a

result, the installations lacked a necessary tool to efficiently manage their UEPH facilities. In addition to the lack of complete records at Fort Rucker, we also noted several other instances of inadequate recordkeeping. For example:

--The Norfolk Naval Station did not consistently maintain occupancy records for UEPH facilities. As a result, the base did not know what space was available to house transient personnel and did not have data needed to analyze space utilization.

--At Eglin Air Force Base, we were unable to determine how many assignments to contract quarters and per diem authorizations were valid because reasons for assigning personnel to contract quarters were not recorded in most cases.

--At both Pope and Langley Air Force Bases, the number of transient personnel housed was inaccurately reported. Enlisted transient personnel living in visiting officer quarters were not reported and field training detachment students were reported as permanent party personnel.

--Between April 1980 and March 1981, Pope Air Force Base reported utilization rates that were overstated by about 5 percent by basing those rates on a housing capacity that was understated by 68 spaces.

DOD's attempts to obtain UEPH inventory and utilization data

DOD has issued instructions requiring the services to report, by installation, inventory and occupancy data for unaccompanied personnel housing. As discussed below, a 1977 attempt by DOD to gather such data was unsuccessful and the results of current efforts are uncertain. In addition, the data DOD is currently requesting will not provide an adequate picture of DOD's housing capacity or asset utilization because the data will not be complete or accurate.

DOD's 1977 instruction on adequacy, assignment, utilization, and inventory of unaccompanied personnel housing required the services to report unaccompanied personnel housing inventory and occupancy data. However, the services never complied with the reporting requirement. Service officials said their existing reports provided sufficient information, and they did not have the personnel needed to comply with the DOD reporting requirement.

In July 1980 DOD reissued the instruction which included revised reporting requirements. At the end of fiscal year 1981, the instruction requires the services to report, by installation, their inventory of rooms by bathroom type (private, shared, or central) and diverted space. Another part of the report requires

occupancy data by pay grade and room size. A third part of the report, not due until the end of fiscal year 1982, covers asset utilization.

The Army plans to use the results of an April 1981 survey to respond to the DOD data request. In addition to not providing an accurate picture of the Army's UEPH capacity, the April survey will not provide information on bathrooms, room sizes, or actual occupancy. As a result, we believe the Army will not be meeting DOD's reporting requirements.

The Navy, Marine Corps, and Air Force had not issued instructions for gathering data to comply with the DOD requirements at the time we completed our fieldwork. However, service headquarters officials said that they would be complying with the DOD reporting requirement. In February 1982, DOD said that only the Air Force had submitted the report.

DOD's reports could be more accurate

Although we believe the requested data will be an improvement over existing data, it will not provide DOD with a complete or accurate picture of its housing capability.

The requested data provides an inventory of rooms by size and type of bath. The room sizes are broken down into the following categories: under 170 square feet, 170 to 199 square feet, 200 to 254 square feet, 255 to 319 square feet, and 320 square feet and over. The room capacity is based on occupancy by personnel in pay grades E-1 through E-4. However, because a large percent (about 26 percent at the installations we visited) of the personnel to be housed are in pay grades E-5 and E-6, this breakdown does not provide a complete picture of the assets' capacity. For example, a 170-square-foot room would fall into the 170- to 199-square-foot category and would be adequate to house two personnel in pay grades E-1 through E-4 or one in pay grades E-5 or E-6. In contrast, a 180-square-foot room would fall into the same category but would be adequate for two E-1s through E-4s or two servicemembers in pay grades E-5 or E-6. When housing one E-5 or E-6 servicemember in the room, it would be accurate to report the 170-square-foot room fully occupied. On the other hand, the 180-square-foot room would be only 50 percent utilized. Thus, a more detailed inventory of room sizes would provide DOD a better picture of the number of personnel it can adequately house in its UEPH assets.

Additionally, the utilization segment of the report will not be accurate. DOD's reporting procedures allow one grade adjustment for each E-5 and E-6 housed and two adjustments for each E-7 through E-9 housed in rooms capable of housing a larger number of lower graded personnel. For a 270-square-foot room capable of housing three E-1 through E-4 servicemembers and actually used to house two E-5s or E-6s, two grades adjustments would be allowed. The two-grade adjustments plus the two people actually housed

could result in erroneously reporting the room 133 percent utilized when it was fully occupied. Similarly, a 200-square-foot room capable of housing two E-1 through E-4 personnel and actually used to house one E-7 would allow two grade adjustments and could be reported as 150 percent utilized.

We discussed these problems with a DOD Manpower, Reserve Affairs, and Logistics official who agreed that the reports would not necessarily provide complete or accurate information. However, he felt that since DOD had been unsuccessful in gathering such data from the services in the past, DOD would be satisfied with whatever information it could obtain and would subsequently make improvements.

UNDERUTILIZED HOUSING AT NEARBY INSTALLATIONS SHOULD BE USED

At two bases where we noted the potential to use underutilized unaccompanied enlisted housing at nearby installations to satisfy their own needs and thus reduce off-base housing costs, we found different practices. Pope Air Force Base was using vacant barracks at Fort Bragg to house transient personnel and save off-base housing costs while the Charleston Naval Station was not using underutilized housing at the nearby Charleston Air Force Base and was unnecessarily spending millions of dollars in off-base housing costs.

We estimate that Pope Air Force Base saved about $184,000 in per diem costs from January 1980 to March 1981 by housing unaccompanied enlisted personnel in underutilized space at nearby Fort Bragg instead of paying off-base housing costs. Pope has an agreement with Fort Bragg to use that base's underutilized transient quarters and cottages. As a result, Pope saved about $58,000 in per diem for transient personnel during the period. Pope also used vacant open-bay barracks at Fort Bragg on two occasions to house large numbers of transient personnel participating in exercises and, thus, saved an additional $126,000.

In contrast, over the 6-month period, October 1980 through March 1981, the Charleston Naval Station authorized BAQ for 571 personnel, per diem for 742 others, and incurred about $558,000 in motel costs to house personnel off base because it had no available on-base housing. At other times many personnel were housed in overcrowded conditions. However, during 1980, the nearby Charleston Air Force Base's permanent party dormitories had an average 69 percent utilization rate. The low utilization rate continued into 1981 as demonstrated by the 793 vacant spaces we noted in a March 1981 survey. The vacant spaces could have been used to house 565 E-1 through E-6 Navy personnel. All enlisted personnel of the Naval Station and the Air Force Base could be housed at levels above DOD's minimum standards of adequacy by the Navy Station using underutilized housing at the Air Force Base.

By using the Air Force space to house permanent party personnel, we estimate the Navy could save $1.2 million annually in BAQ and VHA costs. Alternatively, the Navy could use the space instead of contract quarters to house crews of ships undergoing overhaul. Based on ship overhaul schedules, we estimate savings for fiscal years 1982 and 1983 could amount to $1.7 million and $2.2 million, respectively.

Charleston Air Force Base and Naval Station officials did not favor housing Navy personnel at the Air Force Base. Air Force Base officials felt that such an action would reduce the morale of Air Force personnel, adversely affect reenlistment rates, and increase the burdens on the Base's dining, recreational, and club facilities.

We believe that increases in the burdens, if any, on the Base's dining, recreational, and club facilities would probably be in operating costs. If so, any additional operating costs should be considered in an interservice agreement with the Navy. As for reduced morale, we feel that the Charleston Air Force Base personnel who live in spacious accommodations considerably above Air Force and DOD minimum standards will be more demoralized when subsequently transferred to other Air Force bases and are provided accommodations which meet Air Force or DOD minimum standards, than they would be by Navy use of the space.

Although a Naval Station official indicated that the Navy would not request billeting space from the Air Force because of problems of distance, transportation, and host/tenant relationships, we noted that the Navy had contracted for quarters at a motel about 8 miles from the Naval Station while the distance from the Station to the Air Base was about 13 miles.

CONSTRUCTION BEFORE MODERNIZATION CAN REDUCE OFF-BASE HOUSING COSTS

Modernizing before meeting new construction needs will unnecessarily cost Langley Air Force Base between $214,000 and $285,000 for one project alone. The Base has a fiscal year 1981 modernization project for two dormitories, is planning two additional modernization projects for the fiscal years 1983 and 1985 military construction programs, and is also planning to construct a 251-person dormitory in fiscal year 1987 to replace World War II vintage dormitories. The Base estimates that the 1981 modernization project will take 9 to 12 months to complete. 1/ Because about 140 personnel will be authorized BAQ during the modernization period, the Base will incur off-base housing costs of between $214,000 and $285,000 during the fiscal year 1981 project alone. Since the Base plans to use the World War II vintage

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1/A similar project at Eglin Air Force Base is taking about 2 years to complete.

dormitories until fiscal year 1987 at least, building the new UEPH facility first and then continuing to use the World War II dormitories during the modernization of the other dormitories would avoid off-base housing costs.

Langley originally had planned to modernize four dormitories at one time; however, according to a headquarters Air Force official, the project was reduced to two dormitories to reduce BAQ costs. The official added that the sequence of modernization and construction projects is left to the discretion of the base commander.

DOD has a policy that new UEPH will not be programed at installations having substandard facilities that can be economically upgraded until all such assets are programed for modernization. However, a DOD Manpower, Reserve Affairs, and Logistics official said that DOD allows an exception to its policy when it is more economical to construct new UEPH before modernizing existing ones. He also said that although the services submit UEPH projects to be funded in the current year and out years to DOD for review, DOD's review is concentrated on those projects to be funded in the current year.

ADOPTING DOD'S MINIMUM STANDARDS CAN DECREASE AIR FORCE OFF-BASE HOUSING COSTS

The Air Force has minimum standards of adequacy for E-1 through E-6 personnel which are above those established by DOD. As a result, fewer personnel can be housed in existing assets than if DOD's minimum standards were in effect and the need to house personnel off base is increased.

The Air Force's minimum standards of adequacy for E-1 through E-4 personnel call for servicemembers in those pay grades to receive 90 square feet of living area instead of the 85 under DOD standards. At one installation, Langley Air Force Base, the higher Air Force standards have resulted in 81 fewer spaces being available to house E-1 through E-4 personnel than if DOD's standards were in effect. Thus, increasing the need to house personnel off base.

The Air Force's minimum standards of adequacy for E-5 and E-6 personnel are also higher than DOD's. Under Air Force standards, personnel in those pay grades receive 135 square feet of living area as opposed to 90 square feet under DOD's standards. Because a majority of the Air Force's UEPH assets are two-person rooms with 180 square feet or slightly more living area, the rooms are adequate for two personnel in pay grades E-5 or E-6 under DOD standards but only one under Air Force standards.

At the three Air Force bases visited, we identified 115 E-5 and E-6 personnel who were housed one-to-a-room in rooms that could house two servicemembers in pay grades E-1 through E-6

adequately under DOD standards. Since other enlisted personnel had to live off base because adequate housing was not available on base, we estimate that not using the 115 rooms to house two persons cost the three bases an additional $232,000 in off-base housing costs, as shown in the table below.

Base	Spaces lost	Additional off-base housing costs
Eglin Air Force Base	65	$137,000
Langley Air Force Base	27	55,000
Pope Air Force Base	23	40,000
Total	115	$232,000

To determine UEPH construction requirements, the Air Force measures its UEPH assets by DOD minimum standards of adequacy (i.e., 85 square feet for each E-1 through E-4 and 90 square feet for each E-5 and E-6). Because the Air Force's standards do not permit as many E-5s and E-6s to be housed in a 180-square-foot room as does DOD's, the Air Force's actual utilization will be less than capacity, and the Air Force will continually have a need to authorize BAQ.

According to an Air Force engineering and services directorate official, the Air Force intends to adopt the DOD minimum standards of adequacy for E-1 through E-4 personnel but not for E-5s and E-6s. Because the DOD standard is a minimum, the Air Force said that its 135-square-foot standard meets the DOD standard, and that the amount and quality of space its personnel receive is an important quality of life factor. Today's Air Force personnel have more personal property and need for additional living space. According to a DOD Manpower, Reserve Affairs, and Logistics official, the Air Force's 135-square-foot standard does meet DOD's minimum standard; however, the DOD official emphasized that the Air Force standard should not be implemented in a manner that would increase off-base housing costs.

CONCLUSIONS

In addition to improving the living conditions of unaccompanied enlisted personnel, we believe that efficient UEPH management will also reduce the need to house personnel off base, thus, saving significant amounts of money as demonstrated at the bases visited. Although DOD and the services have instructions on UEPH management, which assign responsibility to the installation commander, the instructions have not been effective because installation, service, and DOD UEPH managers lack accurate and complete information (i.e., utilization data) to efficiently manage UEPH assets. The reporting requirements DOD has instituted are a step in the right direction; however, we have reservations concerning the services' responses, in particular the Army's, and question DOD's gathering of inaccurate data.

As discussed in chapter 2, we believe that unit integrity has resulted in housing servicemembers below DOD's minimum standards of adequacy. We also believe that DOD management has to be sensitive to the additional off-base costs that are being incurred either directly or indirectly through the use of unit integrity in managing UEPH facilities. People are not being assigned to underutilized space because they do not belong to a unit, and in some cases, personnel are housed off base because space assigned to their unit is fully occupied. Not only is there additional expense to house these people off base, but in the latter case it fails to achieve the objective that the concept of unit integrity implies.

Installations can also reduce off-base housing costs through using underutilized assets at nearby installations unless there are strong, overriding reasons and also through programing for UEPH construction projects prior to modernizing existing facilities. We believe that opportunities for savings, such as those identified at the Navy and Air Force installations in Charleston, could be easily identified and explored at the service and/or DOD levels with accurate base UEPH utilization reporting. Similarly, savings opportunities, such as those identified at Langley Air Force Base, could be identified through close review of installations' construction and modernization programs.

Because the services have not adopted DOD's minimum standards of adequacy, servicemembers are housed under a wide variety of living conditions (see ch. 2), and in the Air Force's case, it resulted in unnecessarily increasing the need to house personnel off base at an additional cost.

RECOMMENDATIONS

We recommend that the Secretary of Defense:

--Revise DOD's inventory, occupancy, and utilization reporting requirements so that program managers receive accurate information.

--Require the services to implement the reporting requirements in a timely manner.

--Redirect the services to uniformly adopt and implement DOD's minimum standards of adequacy for assigning personnel to existing adequate housing. In the case of the Air Force, it would mean lowering the standard for E-5 and E-6 personnel to DOD's minimum standards, which would reduce off-base housing costs.

We further recommend that the Secretary direct the services to:

--Explore the opportunities to use underutilized UEPH space of other services when appropriate and to cooperate with services seeking to use those assets.

--Closely review installations' programing of construction and modernization projects to identify and take advantage of opportunities to reduce off-base housing costs.

We also recommend that the Secretary redirect the services to discontinue use of unit integrity in making room assignments where such assignments are resulting in underutilized housing and eligible personnel are living off base at additional cost to the Government.

AGENCY COMMENTS AND OUR EVALUATION

DOD commented on a draft of this report orally on February 8, 1982, and by letter dated March 5, 1982 (see app. IV). In general, DOD agreed that improvements in UEPH management can reduce off-base housing costs. Also, the Acting Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) sent a memorandum to the services instructing them to implement many of our recommendations. DOD said that its July 1981 instruction requires the services to report inventory, occupancy, and utilization data and that the quality of the data should improve as the services gain experience with the report. DOD also said that modifications will be made, as appropriate, to improve the accuracy of the report and the usefulness to UEPH managers at the installation and mid-management levels.

DOD also advised us that, although the services have adopted DOD's minimum standards of adequacy for assigning personnel, they will be reminded of the existing policy. In its February 1982 comments, DOD officials told us that it is not necessary to require the Air Force to reduce its minimum standards of adequacy for E-5 and E-6 personnel from 135 to 90 square feet per person because DOD's standards are minimum ones with which the Air Force's standards comply. Since the majority of the Air Force's UEPH assets are 180-square-foot rooms, allowing 135 square feet per person requires assigning E-5 and E-6 personnel one-to-a-room, and, thus, assigning such personnel either 90 square feet (100 percent) or 45 square feet (33 percent) more than DOD's minimum standards of adequacy or criteria for new construction. The Air Force's higher standard also reduces the number of people who can be housed in existing assets, and thus, increases off-base housing costs. Therefore, because the Air Force's higher standard for E-5 and E-6 personnel results in additional off-base housing costs, we continue to believe that DOD should require the Air Force adopt the lower DOD minimum standards.

CHAPTER 4

THE SERVICES REPORT INACCURATE HOUSING DEFICITS CAUSING UNNECESSARY CONSTRUCTION

In February 1981, DOD reported to the Congress that it had a requirement to construct or modernize approximately 300,000 UEPH spaces. At the nine installations visited, we found that

- --six overstated their UEPH deficits by 2,948 spaces (85 percent),
- --one understated its deficit by 77 spaces (15 percent), and
- --two understated UEPH surpluses by 412 spaces (55 percent).

We also noted that the Navy does not count berthing barges as UEPH assets and that underutilized space at one installation could be used to meet the needs of another installation. Based on these findings, we believe that DOD does not have an accurate picture of where valid UEPH construction requirements exist or of the size of those requirements. Therefore, DOD's programing and planning of UEPH construction, costing about $20 million at four installations, is questionable.

In addition, we found that three Air Force bases reported assets capable of housing about 3,200 personnel as substandard when, in fact, the assets were adequate according to DOD criteria. Such reporting distorts construction requirements and inaccurately reports adequate assets as needing modernization.

DOD'S GUIDANCE ON COMPUTING UEPH DEFICITS

DOD Instruction 4165.54 contains guidance and procedures for computing UEPH construction requirements and programing projects. Form 1657 is the basic document used in determining UEPH construction requirements. The document reflects the results of information gathered at installations from family housing surveys and from long-range personnel plans. The services submit the completed form to DOD to support proposed construction projects.

A 5-year projection for permanent party personnel serves as a starting point for computing UEPH requirements. The total effective UEPH requirement is equal to 100 percent of the permanent party and transient personnel strengths adjusted to eliminate personnel living in family housing. The total programing limit consists of 90 percent of the permanent party strength plus 100 percent of the average transient personnel expected at

the installation. Adequate assets consist of military quarters and private housing available in nearby communities.

DOD defines its total effective UEPH deficit as 100 percent of the unaccompanied permanent party and transient personnel strengths less adequate housing. The total programing limit is computed in the same manner, but includes only 90 percent of the unaccompanied permanent party and 100 percent of the transient personnel strengths to preclude overprograming.

UEPH DEFICITS ARE INACCURATELY COMPUTED

Although DOD reports a requirement to construct or modernize approximately 300,000 UEPH spaces, we estimate that in computing UEPH construction requirements, the nine installations visited overstated the number of personnel needing housing by 1,600, understated the capacity of existing adequate housing by 1,700 personnel, and reported another 3,200 adequate spaces as substandard. As a result, the nine installations' reported requirements to construct 6,500 housing spaces was overstated by about 102 percent. Because four of the installations overestimated their construction requirements, they programed or planned to construct $20 million in facilities for which we believe the need is questionable. The installations' and GAO's estimates of the UEPH deficits for the installations with programed or planned unneeded construction are shown below.

Installation	Estimated effective UEPH deficits per Installation	GAO	Difference
Redstone Arsenal	389	43	346
Charleston Naval Station	1,836	1,030	806
Norfolk Naval Air Station	935	466	469
Norfolk Naval Station	1,578	1,045	533

Details of how the four installations, as well as the other installations visited, inaccurately computed their UEPH deficits are discussed below.

Fewer personnel need housing than reported

At four of the installations visited, we found that an estimated 1,600 fewer personnel (or about 10 percent of the total effective UEPH requirement) needed housing than reported. Reasons for these deviations included overstating permanent party and transient strengths, reporting requirements for personnel not living in UEPH, and using questionable marital factors.

Inaccurate permanent party and transient personnel figures

Inaccuracies in permanent party and transient personnel figures increased the effective UEPH requirement by about 970 personnel.

Fort Rucker. Enlisted personnel strength was overprojected by 343 personnel; thus, increasing its UEPH requirements by an estimated 122 personnel. The base's enlisted personnel projections were based on a November 1980 Army Stationing and Installation Plan. We noted that the plan

--included two Army Reserve units (408 enlisted personnel) which the base supported, but does not provide UEPH;

--counted one infantry company twice (102 extra enlisted personnel); and

--excluded a cavalry unit (167 enlisted personnel).

We pointed the errors out to Fort Rucker officials who acknowledged them and initiated corrective action. We estimate that the errors resulted in overstating the UEPH requirements by 122 personnel.

Charleston Naval Station. We found that the Station's effective UEPH requirement was overstated by 563 personnel due to errors in determining the number of host/tenant and transient personnel to be housed.

We noted a substantial increase in the number of host/tenant personnel projected to be housed between 1979 and 1980 but were unable to find any support for the increase and asked the Station to explain. Subsequently, the Station informed us that its host/tenant strength was overstated by 842 enlisted crewmembers of one ship who were erroneously included in the Station's host/tenant strength. We estimate that the error overstated the station's UEPH requirement by 463 personnel.

The Station also could not provide support for the 396 transient personnel requirement it reported. However, we noted that on the average

--50 transients were paid per diem each day,

--108 personnel were housed in the transient barracks, and

--94 personnel were being detained for legal reasons (also a transient requirement).

Additionally, we noted that 44 other transients were housed in another barracks at the time of our review. Based on

the above figures, we estimate that the Station's transient requirement was overstated by about 100 personnel.

Norfolk Naval Air Station. A requirement to house 252 transient and 48 reserve personnel was reported. However, based on occupancy and per diem reports from October 1979 through September 1980, we determined that the base provided housing to a daily average of 119 transient and reserve personnel. Therefore, the transient and reserve figures were overstated by about 181 personnel.

Norfolk Naval Station. Based on our review of available occupancy reports, we determined that the Station's reported requirement to house 600 transient personnel was understated by about 107 personnel and its requirement to house 635 precommissioning unit personnel was overstated by about 211 personnel.

Requirements include personnel not living in UEPH

Because the Navy uses averages when removing personnel not residing in UEPH from total personnel strengths, its UEPH requirements are overstated. In computing UEPH requirements, the Navy starts with an installation's total projected personnel strengths. The Navy then removes the average number of married personnel for all activities at the installation and then the average number of unmarried personnel for activities whose personnel do not reside in UEPH (i.e., large ships 1/). As a result of using averages applied incorrectly, all personnel not residing in UEPH are not removed from requirements.

For example, the Norfolk Naval Station host/tenant, large, and small ship activities' projected unmarried enlisted personnel are 24, 60, and 54 percent, respectively, of the total enlisted personnel. Because the Navy used average percents applied to the installation's total enlisted population in eliminating married personnel (43 percent) and applied to only the large ship activity when eliminating personnel not residing in UEPH (57 percent), all personnel on large ships were not removed from the requirements.

As a result of using such a system, we estimate that the Norfolk and Charleston Naval Stations' UEPH requirements are overstated by 174 and 144 personnel, respectively.

Questionable marital factor

We also noted that UEPH requirements for personnel at the Norfolk Naval Air Station were questionable. The Air Station's

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1/Large ships have displacements of 1,000 tons or more and assigned personnel are berthed on board.

September 1980 UEPH requirements allowed for 3,422 (60 percent) married enlisted personnel compared with 3,138 (55 percent) in December 1980; thus, increasing the number of unaccompanied enlisted personnel requiring UEPH by 284. According to a Naval Facilities Engineering Command housing official, the change was made to reflect actual conditions at the base. However, the base was unable to provide documentation to support the change. The Engineering Command official emphasized that the figures reported in the determination of UEPH requirements were not necessarily verified because the Navy lacked personnel to adequately validate UEPH requirements.

The amount of existing adequate housing is understated

At eight of the nine installations, the number of servicemembers who could be housed in existing adequate housing was understated by about 4,900 spaces. About 1,700 of the understatement was due to:

--The Army's inventory procedures not accurately measuring UEPH capacity.

--Two Navy installations not reporting the optimum capacity for UEPH facilities.

--Installations not reporting or inaccurately reporting building capacities.

Also, three Air Force bases reported about 3,200 adequate spaces as substandard. In addition to misstating requirements for new construction, such reporting also misstates the need to modernize facilities.

Army procedure overstates UEPH deficit

The Army procedure for measuring UEPH assets increased the UEPH deficit at three bases by 1,018 personnel.

Under the Army procedure, the installations we visited measured the number of 90-square-foot spaces in their UEPH facilities. They then computed capacity of the spaces by multiplying the number of personnel in pay grades E-1 through E-4, E-5 and E-6, and E-7 through E-9 by space factors of 1, 1.5, and 3, respectively. This procedure assumes that each occupant in the pay grade categories is housed in either 90, 135, or 270 square feet of living area, respectively. Because permanent party personnel in pay grades E-5 and E-6 can be housed adequately in 90-square-foot rooms and personnel in pay grades E-7 through E-9 can be housed adequately in 200-square-foot rooms, the Army's procedure results in understating housing capacity.

We inventoried the Army bases' adequate UEPH assets by room size and type of bathroom facility. We then assigned the bases' projected permanent party and transient personnel to rooms using DOD's minimum standards of adequacy or current construction criteria as appropriate.

The above procedures resulted in increasing the three Army bases' housing capacity by 1,018 personnel and decreasing the UEPH deficit by the same amount as shown below.

	Fort Belvoir	Redstone Arsenal	Fort Rucker	Total
	----------(personnel)----------			
Army				
Requirement	2,620	1,845	3,286	7,751
Assets (note a)	2,361	1,442	1,867	5,670
Deficit	259	403	1,419	2,081
GAO				
Requirement	2,620	1,845	3,286	7,751
Assets (note a)	2,591	1,788	2,309	6,688
Deficit	29	57	977	1,063
Difference	230	346	442	1,018

a/Assets exclude off-base housing, but include for Fort Belvoir the capacity of certain barracks after modernization and for Redstone Arsenal the capacity of a 240-room barracks under construction.

In April 1981 the Army issued guidance to its commands to report UEPH assets in terms of 85-square-foot spaces instead of 90. This change will not correct the problem. For example, Redstone Arsenal, using 90 square feet, overstated its deficit by 346 spaces. Using the 85-square-foot criteria, we estimate the base will still overstate its UEPH deficit by between 226 and 266 spaces depending on the grade of the personnel assigned to the spaces.

Navy does not maximize housing capacity

Two of the Navy installations we visited did not report maximium capacities for UEPH assets and, as a result, understated UEPH housing capacity by about 402 personnel. For example, building 67 at Charleston Naval Station has 60 rooms with between 255 and 339 square feet. The Station reports the building has a capacity of 120 personnel in pay grades E-5 and E-6, but it can

house 180 personnel in pay grades E-1 through E-4 adequately. In contrast, building 35 also has 60 rooms, but with between 200 and 254 square feet. The Station reports the latter rooms as having a capacity of 120 personnel in pay grades E-1 through E-4; however, the rooms can adequately house 120 personnel in pay grades E-5 and E-6. By designating building 67 for E-1 through E-4 personnel and building 35 for E-5 and E-6 personnel, the station can increase its UEPH capacity by 60 personnel while housing all personnel in accordance with DOD's minimum standards of adequacy.

By maximizing the capacities of its UEPH assets as described above, the Navy can increase the capacity of UEPH assets at Charleston Naval Station by 147 personnel and at Norfolk Naval Station by 255 personnel.

Other instances of inaccurately reported UEPH assets

UEPH assets at four installations were either inaccurately reported or not reported, as demonstrated below.

--For Pope Air Force Base, a Military Airlift Command official reduced the base's reported existing adequate assets by 50 and increased the substandard by 34. With the exception of the substandard assets, we believe the base's figures to be more accurate.

--Eglin Air Force Base did not count three buildings with a capacity of 324 personnel.

--Langley Air Force Base revised real property records to reduce the capacity of one building from 180 to 90 personnel. We determined the building's capacity to be 150 personnel.

--Charleston Naval Station overstated the capacity of one building by 48 personnel. As a result of an alteration project, the building had 16 fewer three-person rooms than reported.

Air Force reports adequate assets as substandard

The three Air Force bases each reported about 1,000 spaces as substandard; however, based on DOD minimum standards of adequacy, those assets were actually adequate. According to a headquarters Air Force housing official, the Air Force reports UEPH facilities as substandard when the facilities have inadequate electrical or plumbing systems and when the facilities do not meet new construction standards (i.e., individual rooms with bathrooms). However, the latter reason is the predominant one for reporting UEPH as substandard. According to the official, reporting the assets in this manner shows a need to modernize the facilities. Because the facilities do meet DOD's minimum

standards of adequacy and fall within DOD's exception to meeting new construction criteria which allow use of central bathroom facilities when semiprivate bathrooms are impractical, we believe the Air Force should report them as adequate.

The capacity of substandard assets is reported at the capacity they will have after modernization. Because actual and reported capacity may vary as shown in the table below, UEPH construction requirements are misstated.

Installation	Actual	Reported	Difference
Eglin Air Force Base	1,128	1,128	0
Langley Air Force Base	957	1,094	137
Pope Air Force Base	1,080	1,008	-72
Total	3,165	3,230	65

BERTHING BARGES ARE NOT CONSIDERED AS ASSETS

The Charleston Naval Station UEPH requirements included 1,046 personnel from ships undergoing overhaul at the Charleston Naval Shipyard. However, the Station's deficit was not lowered to reflect berthing barges to be acquired to house the personnel. In June 1981 the Shipyard received two berthing barges with a capacity to house 388 enlisted personnel. Further, the Navy plans to spend about $143 million to construct barges capable of housing 4,112 personnel and about $33 million to rehabilitate other barges capable of housing 6,234 personnel. According to a Naval Facilities Engineering Command housing official, the Navy does not count the barges as UEPH assets because the barges are considered to be temporary and inadequate for housing. While we noted that the barges do not provide housing which meets DOD's minimum standards of adequacy, they provide accommodations similar to those on board ships and the portion of overhaul crews to be housed therein should not be considered in determining UEPH requirements.

UNDERUTILIZED ASSETS CAN MEET REQUIREMENTS

Underutilized UEPH space at some installations can be used to reduce off-base housing costs at nearby installations. In addition to the short-term use of vacant space, those assets may be used to meet long-term needs in place of constructing additional assets. For example, considering the use of berthing barges and private housing, we estimate that the Charleston Naval Station still needs housing for about 645 personnel. The nearby Charleston Air Force Base has underutilized space capable of housing about 800 personnel. We believe that instead of constructing new UEPH assets to meet the Naval Station's requirement, DOD should consider the option of long-term Navy use of the Air Force UEPH assets.

QUESTIONABLE PROJECTS SHOULD BE REVALIDATED

Based on our evaluation of the nine installations' support for UEPH deficits, we identified questionable UEPH construction plans at four bases estimated to cost $20 million.

Redstone Arsenal is planning a 372-person barracks, costing about $5.8 million for fiscal year 1984. However, our evaluation of the base's total effective UEPH deficit indicated that the base lacked UEPH facilities for 43 personnel instead of the reported 389. Recomputing the base's UEPH programing limit showed that the project was not justified. Similarly, after evaluating the total effective UEPH deficit for the Charleston Naval Station, and considering use of berthing barges and underutilized space at the Charleston Air Force Base, the need for a 300-person, $5.3 million barracks programed for fiscal year 1982 is also questionable. However, because neither the Naval Station nor the Air Force Base have barracks with private bathrooms, we realize that without constructing new assets, the Station will not be able to provide adequate housing for the 59 personnel in pay grades E-7 through E-9 for which it reports a housing requirement.

Our evaluation of the total effective UEPH deficits for the Norfolk Naval Station and the Norfolk Naval Air Station showed that 533 and 469 of the Stations' reported UEPH deficits, respectively, were questionable (see app. III). As a result, we believe that the scopes of a Naval Station barracks planned for fiscal year 1984 and a Naval Air Station barracks planned for fiscal year 1983 could be reduced at a savings of $9.9 million.

CONCLUSIONS

The services overestimated the number of personnel needing UEPH. In particular, unsupportable permanent party and transient personnel projections and the Navy's system for determining the number of unaccompanied personnel result in questionable UEPH deficits. The services also underestimated the number of personnel who can be adequately housed in existing assets by (1) not reporting optimum capacities under DOD's minimum standards of adequacy, (2) not reporting assets, (3) reporting incorrect capacities, and (4) reporting adequate assets as substandard.

As a result of the practices described above, the services overestimated their overall UEPH deficits and are planning to construct unneeded facilities at some installations. We believe that this situation further demonstrates the need for an accurate inventory of DOD's UEPH assets as well as a thorough review of the personnel strengths upon which the services base UEPH requirements. By accurately determining installations' UEPH deficits, DOD could not only save millions in unnecessary construction but could also improve the overall living conditions of its personnel by programing projects for locations where real needs exist.

By not counting berthing barges as UEPH assets and by not using underutilized UEPH assets at some installations, DOD will spend millions unnecessarily.

RECOMMENDATIONS

We recommend that the Secretary of Defense direct the services to:

--Thoroughly review the UEPH deficits for currently programed and funded, and/or planned UEPH construction projects and cancel, where economical to do so, unneeded projects, in particular, at Redstone Arsenal, Charleston Naval Station, Norfolk Naval Station, and Norfolk Naval Air Station.

--Defer programing additional UEPH facilities until an accurate UEPH inventory is established.

--Verify the personnel strengths upon which UEPH requirements are based.

--Measure UEPH assets based on maximum capacities under DOD's minimum standards of adequacy or new construction criteria as appropriate.

--Use underutilized space at nearby installations as a means of meeting UEPH needs.

We also recommend that the Secretary direct the Navy to

--Program UEPH projects for only the portion of ships' crews who are not to be housed in berthing barges during overhauls.

--Correct its system for determining UEPH requirements by eliminating consideration of personnel living on ships.

AGENCY COMMENTS AND OUR EVALUATION

DOD generally agreed that the services should more accurately estimate requirements. Regarding our recommendation that programing additional UEPH facilities be deferred until an accurate inventory is established, DOD stated that the entire UEPH program should not be deferred, but deferred on a case-by-case basis.

DOD did not agree that the Secretary of the Navy be directed to program UEPH assets for only the portion of ships' crews who are not to be housed in berthing barges during overhaul periods. DOD pointed out that the barges are wartime assets designed to meet berthing needs during military contingencies. DOD believes that because the barges can be moved from location to location as the need arises, they should not be counted to

meet berthing needs at any one location. The Navy pointed out that the barges could be used to accommodate crews of ships being overhauled by any of the 200 private contractors the Navy uses.

We believe that the berthing barges should be counted as assets available to meet housing requirements of ships undergoing overhaul at Navy shipyards because the Navy has spent millions of dollars to rehabilitate the barges to house personnel and that is how a large number are being used. In our June 1981 report on the Navy's berthing facilities for ships undergoing overhaul, 1/ we pointed out that 28 of 44 berthing barges in the Navy's inventory as of July 1980, were being used at Navy shipyards.

1/"Navy's Berthing Facilities for Ships Undergoing Overhaul" (PLRD-81-41, June 23, 1981).

CHAPTER 5

UNNECESSARY MODERNIZATION COULD COST MILLIONS

Because the Air Force and Army are unnecessarily modernizing UEPH facilities, DOD is unnecessarily spending millions of dollars. The Air Force, in particular, is spending an amount equal to 84 percent of the cost of constructing new UEPH facilities in an effort to add private or semiprivate bathrooms to facilities which already meet DOD standards.

NEED TO ELIMINATE UNNECESSARY MODERNIZATION PROJECTS

Army, Navy, and Marine Corps UEPH modernization projects generally involve converting open-bay barracks, which do not meet DOD's minimum standards of adequacy, to room configuration with either central bathroom facilities or private bathrooms when economical, thereby upgrading the facilities to meet DOD's minimum standards of adequacy. On the other hand, the Air Force has requested over $120 million since fiscal year 1978 to modernize dormitories with central bathroom facilities in the continental United States by adding private or semiprivate bathrooms. Our review of three of the projects showed that the facilities already met DOD minimum standards of adequacy.

DOD's policy on modernizing UEPH facilities is to achieve new construction standards (i.e., 270-square-foot rooms with bathrooms) whenever feasible and economical. Modernization projects are to be based on sound engineering judgment to assure maximum use of existing assets compatible with reasonable costs. Recognizing that new construction criteria are not always achievable, DOD has allowed several exceptions:

--When three-person rooms for personnel in pay grades E-2 through E-4 are not feasible, the maximum number of personnel to be housed in a room is limited to four.

--When it is impractical to provide personnel in pay grades E-2 through E-4 a semiprivate bathroom, a central bathroom is acceptable, provided that it is convenient and not used by more than 30 personnel.

--When it is impractical to provide a bathroom in rooms shared by two occupants in pay grades E-5 and E-6, a separate central bathroom may be provided.

According to a DOD housing official, DOD considers modernization to be economical when modernization costs are approximately 75 percent of new construction costs. However, a higher percentage is acceptable when modernization also results in improving a building's mechanical and electrical systems. The services approve UEPH modernization projects when the cost is about

75 to 80 percent of constructing new facilities. However, a Marine Corps housing official said that because of economics, the Marine Corps will approve modernization projects up to 100 percent of new construction costs.

Air Force modernization program is questionable and costly

We visited three Air Force bases which had UEPH modernization projects either under construction, programed, or planned at a cost of about $24 million. We reviewed three of the modernization projects costing $8.1 million which were either under construction or programed and found them to be highly questionable from several aspects, as discussed below.

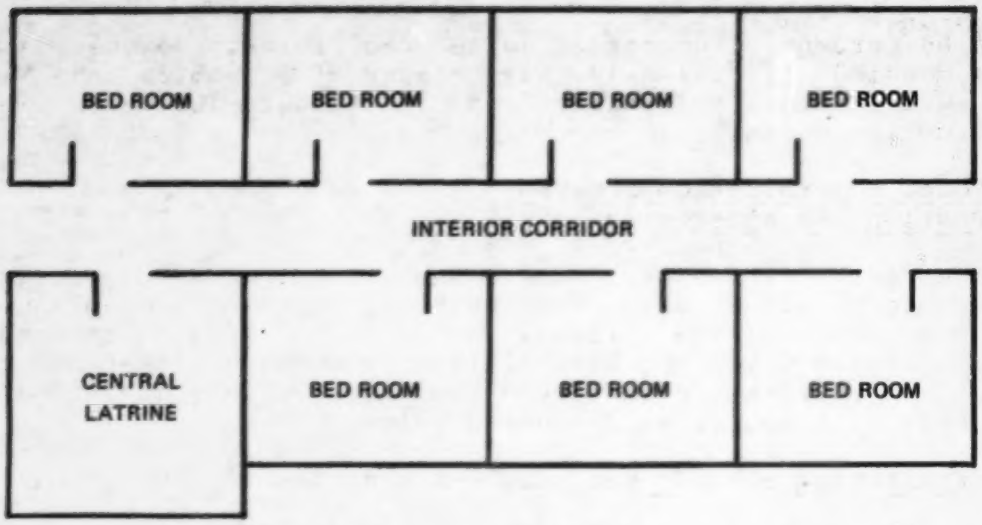
Facilities already meet DOD's standards

At the locations visited, the dormitory modernization projects involved adding semiprivate bathrooms to individual dormitory rooms. This will be accomplished by constructing bathrooms in the dormitories' interior corridors, and providing access to the rooms through an exterior doorway and an outside walk. (See p. 38.) However, prior to modernization, the dormitories met DOD's minimum standards of adequacy for personnel in pay grades E-1 through E-6. For example, the Eglin Air Force Base modernization project involves adding semiprivate bathrooms to 192-square-foot rooms that are already adequate for housing two personnel in pay grades E-1 through E-6.

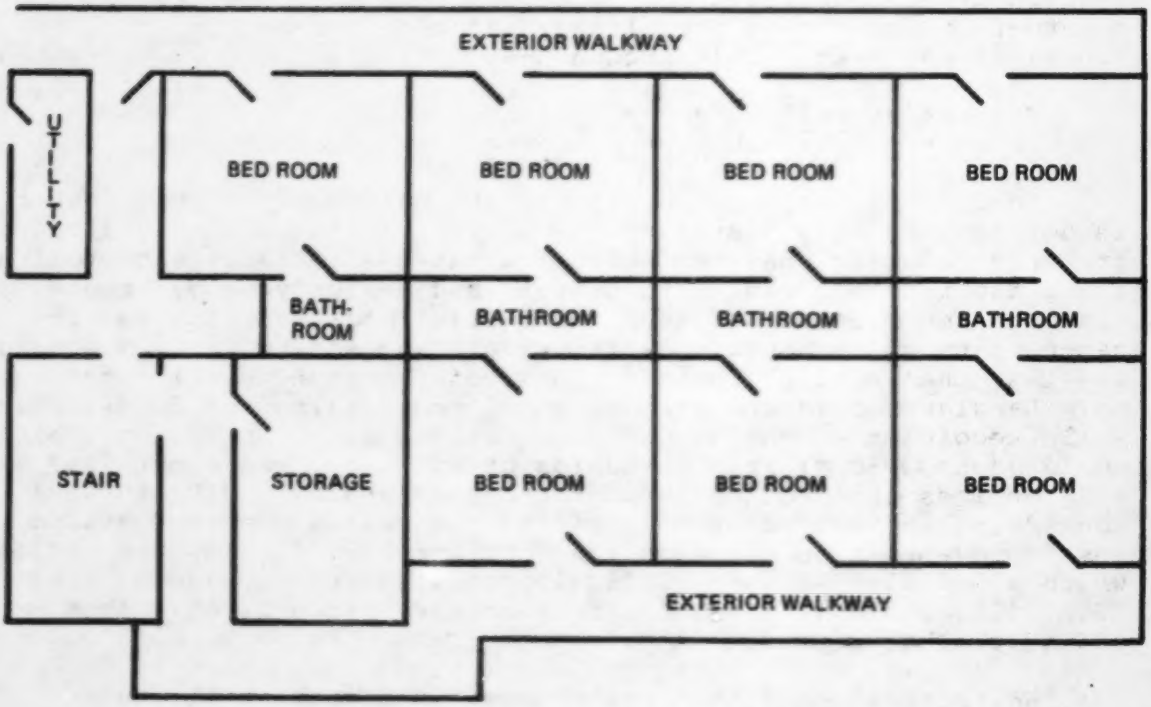
Facilities fall under exception to meeting construction criteria

In our opinion, adding semiprivate bathrooms to dormitories is not economically justified. The three installations visited prepared economic analyses which evaluated alternatives to modernizing their dormitories with private and semiprivate bathrooms. Although the present value of the initial and recurring maintenance costs of modernizing with private and semiprivate bathrooms was less than similar costs for new construction in all cases, only Langley considered the option of modernizing the dormitories while keeping the central bathroom facilities. The option, which would meet DOD's minimum standards of adequacy, was about $2.9 million less than adding the bathrooms. Langley and Eglin also considered the option of maintaining the status quo (not making any improvements to the existing dormitories). Again, the option which would also satisfy DOD's minimum standards of adequacy was $2.6 million and $1.6 million less costly, respectively, than adding the bathrooms.

We further noted that the economic analyses at all three bases were incomplete in that none of the bases considered the additional off-base housing costs they would incur as a result of the modernization projects. For example, we estimated that



SAMPLE FLOOR PLAN PRIOR TO MODERNIZATION



SAMPLE FLOOR PLAN AFTER MODERNIZATION

modernizing a 564-person dormitory at Eglin Air Force Base resulted in authorizing BAQ for about 340 personnel for the project construction period (about 2 years) at a cost of about $717,000. A Pope Air Force Base official indicated that some of the personnel displaced by modernization work may be housed on base and some off base. Langley Air Force Base will also incur off-base housing costs under present plans.

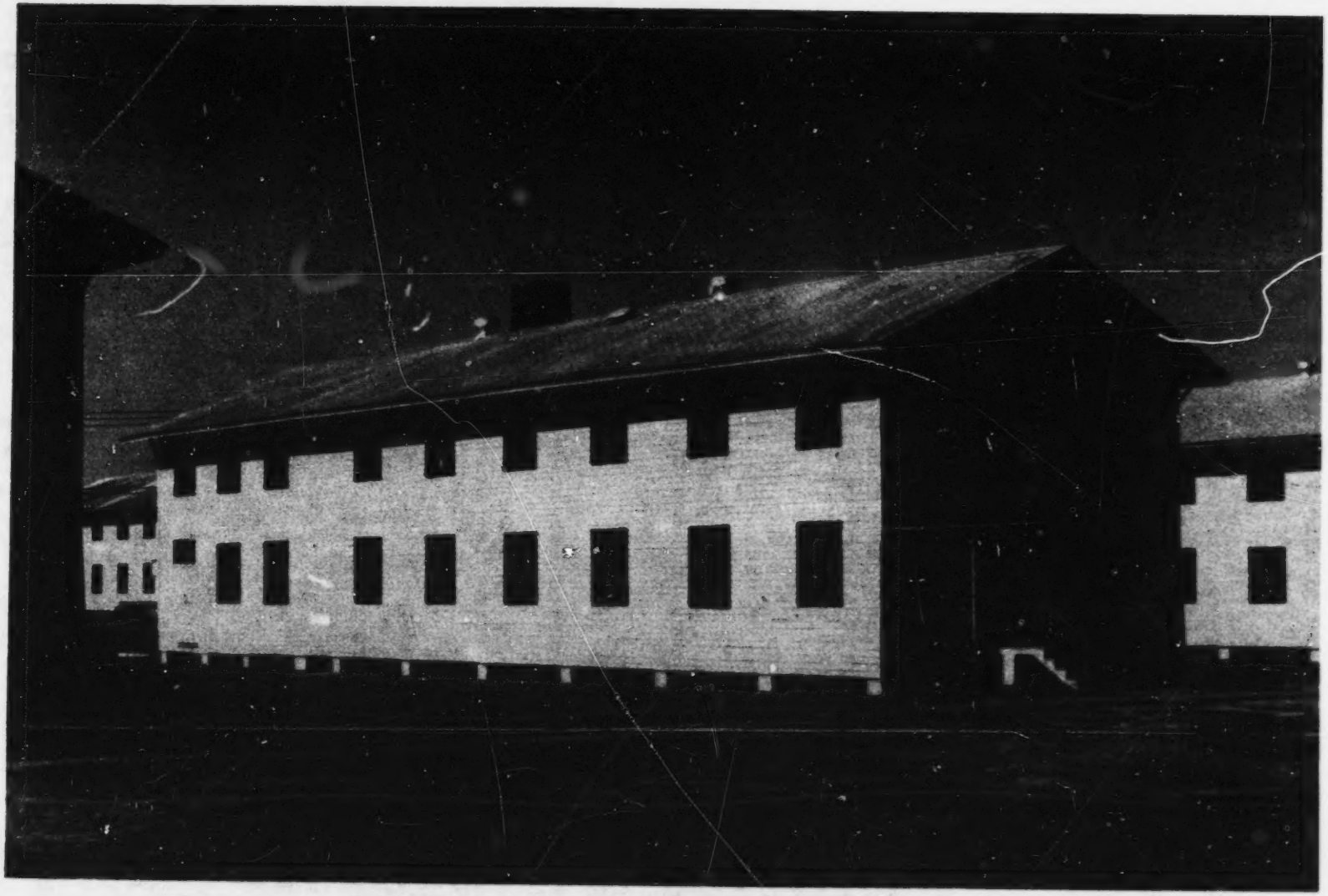
The dormitories at Eglin, Langley, and Pope Air Force Bases had central bathroom facilities for an average of every 14, 23, and 24 occupants, respectively. Because the modernization projects were not economically justified as discussed above and the dormitories have central bathroom facilities which serve less than 30 people, we believe the dormitories fall under DOD's exception to meeting new construction criteria and such projects should not be approved.

We compared the programed costs for 5 Air Force new construction and 18 modernization projects scheduled for fiscal years 1980 and 1981 at various Air Force bases throughout the continental United States. The results of our comparison showed that the Air Force programed $47.02 per square foot for constructing new UEPH facilities and $39.71 per square foot for modernizing its existing facilities to provide semiprivate and private bathrooms. Based on these selected projects, the Air Force was programing dormitory modernization projects which cost about 84 percent of the cost of new dormitory construction.

Fort Rucker modernization will not reduce housing deficit

Fort Rucker is modernizing at a cost of $534,000 seven temporary wooden, open-bay barracks to add air-conditioning and individual rooms. (See picture on p. 40.) When completed, the barracks will be able to house 196 enlisted personnel. Although the renovation may improve living conditions over the open-bay atmosphere, the project will not make the barracks adequate by DOD's minimum standards of adequacy or reduce the base's housing deficit because the buildings will continue to be considered inadequate due to their temporary nature. We believe this modernization is not justified.

In January 1979, when the Army requested funds to modernize the barracks, the Army indicated that this project was needed to provide additional housing to meet Fort Rucker's increased training load. However, the base now plans to use the barracks to house some of the enlisted personnel currently living in 18 temporary barracks scheduled to be torn down. According to a base official, continued use of the temporary barracks will be necessary because the base can only program for 90 percent of its effective requirement.



BARRACKS BEING MODERNIZED AT FORT RUCKER

Source: U.S. Army

CONCLUSIONS

We believe that Air Force modernization projects adding semiprivate or private bathrooms are costly and unnecessary since the facilities already meet DOD's minimum standards of adequacy and fall within DOD's exception to meeting new construction criteria when modernizing existing facilities. The cost of such projects is comparable to replacing the existing facilities to obtain private or semiprivate bathrooms. We feel that such efforts are not justified. Further, failure to consider the additional off-base housing costs of personnel displaced by modernization projects makes those projects appear more desirable than they actually are.

We further believe that the need exists to closely review installations' modernization projects to insure that funds are not spent to upgrade facilities that do not and cannot meet DOD's standards of adequacy.

RECOMMENDATIONS

We recommend that the Secretary of Defense:

--Not approve Air Force UEPH modernization projects which add private or semiprivate bathrooms to UEPH facilities which already meet DOD's minimum standards of adequacy and modernization criteria.

--Require the services to consider the additional off-base housing costs associated with modernization projects.

--Limit UEPH modernization projects to those facilities that will meet DOD's minimum standards of adequacy.

AGENCY COMMENTS AND OUR EVALUATION

DOD did not agree with our recommendation not to approve Air Force modernization projects when facilities already meet DOD's minimum standards of adequacy and modernization criteria. DOD and the Air Force said that such projects are acceptable since the Air Force is willing to program the funds in order to improve the living conditions of its personnel.

Since seven of the nine installations we visited did not have enough adequate UEPH to accommodate all personnel (see app. III), we believe that constructing UEPH rather than improving facilities which already meet DOD's minimum standards of adequacy would do more to improve the overall living conditions of military personnel.

DOD also commented that improving facilities that do not meet and cannot meet DOD's minimum standards of adequacy is worthwhile

in that living conditions can be greatly improved for limited amounts of money. We feel that while DOD's position will result in improved living conditions in the short term, this approach will not reduce UEPH construction requirements or provide facilities to adequately house personnel in the long term. The Fort Rucker project was not supported by an economic analysis. Without support that modernizing temporary UEPH facilities is economically justified, we believe that DOD should limit modernization projects to facilities that will meet DOD's minimum standards of adequacy.

DOD MILITARY CONSTRUCTION APPROPRIATION REQUESTS FOR UNACCOMPANIED ENLISTED PERSONNEL HOUSING

(Fiscal years 1978-1982)

Fiscal year	New construction Spaces	New construction Millions	Modernization Spaces	Modernization Millions	Total Spaces	Total Millions
Army:						
1978	1,761	a/$ 15.4	926	$ 9.6	2,687	a/$ 25.0
1979	1,612	23.8	757	9.1	2,369	32.9
1980	4,862	65.4	881	4.8	5,743	70.2
1981	3,343	69.3	2,431	22.5	5,774	91.8
1982	4,220	b/ 93.7	826	6.9	5,046	b/100.6
Total	15,798	c/267.6	5,821	52.9	21,619	c/320.5
Navy/Marine Corps:						
1978	2,074	21.0	1,369	8.0	3,443	29.0
1979	4,485	50.9	4,990	42.2	9,475	93.1
1980	3,567	42.0	423	15.4	3,990	57.4
1981	4,540	73.0	1,141	15.6	5,681	88.6
1982	9,487	143.8	2,442	40.8	11,929	184.6
Total	24,153	330.7	10,365	122.0	34,518	452.7
Air Force:						
1978	472	4.9	1,289	7.5	1,761	12.4
1979	1,010	9.1	6,959	36.4	7,969	45.5
1980	1,287	13.1	7,232	45.2	8,519	58.3
1981	1,684	19.2	2,390	22.7	4,074	41.9
1982	1,872	31.1	3,718	36.4	5,590	67.5
Total	6,325	77.4	21,588	148.2	27,913	225.6
TOTAL	46,276	$675.7	37,774	$323.1	84,050	c/$998.8

a/Includes funds for 157 officer spaces.
b/Includes funds for 11 officer spaces.
c/Includes funds for 168 officer spaces.

APPENDIX II

MONTHLY BAQ, VHA, AND PARTIAL BAQ RATES FOR UNACCOMPANIED ENLISTED PERSONNEL

(Fiscal year 1981)

Allowance	Pay grade E-1	Pay grade E-3	Pay grade E-6	Pay grade E-9
BAQ	$103.20	$123.60	$163.20	$229.20
VHA				
Installation				
Fort Belvoir, Virginia	66.30	78.00	81.00	125.40
Fort Rucker, Alabama	25.50	30.00	24.30	45.60
Redstone Arsenal, Alabama	20.40	24.00	16.20	45.60
Naval Air Station, Norfolk, Virginia	45.90	54.00	48.60	79.80
Naval Station, Charleston, South Carolina	35.70	42.00	40.50	57.00
Naval Station, Norfolk, Virginia	45.90	54.00	48.60	79.80
Eglin Air Force Base, Florida	51.00	60.00	56.70	57.00
Langley Air Force Base, Virginia	30.60	36.00	32.40	68.40
Pope Air Force Base, North Carolina	25.50	30.00	24.30	45.60
Partial BAQ	6.90	7.80	9.90	18.60

APPENDIX III

COMPARISON OF MILITARY AND GAO ESTIMATES OF TOTAL EFFECTIVE UEPH DEFICITS FOR SELECTED INSTALLATIONS

	Total effective UEPH deficit/surplus per			
	Military	GAO	Difference	
	(personnel)			
Installations overstating deficits:				
Fort Belvoir	259	29	230	
Fort Rucker	1,419	855	564	
Redstone Arsenal	389	43	346	
Charleston Naval Station	1,836	1,030	806	
Norfolk Naval Air Station	935	466	469	
Norfolk Naval Station	1,578	1,045	533	
Total	6,416	3,468	2,948	(85%)
Installation understating deficits:				
Langley Air Force Base	421	498	-77	(-15%)
Installations understating surpluses:				
Eglin Air Force Base	-38	-362	-324	
Pope Air Force Base	-292	-380	-88	
Total	-330	-742	-412	(-55%)

APPENDIX IV

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

5 MAR 1982

Mr. Donald J. Horan
Director
Procurement Logistics and Readiness Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Horan:

Your January 19, 1982 letter to the Secretary of Defense requested our comments on your draft report entitled "DoD's Unaccompanied Enlisted Personnel Housing Program -- Improved Living Conditions and Reduced Costs are Possible," (Code 945457 - OSD Case #5877).

Your report highlights a number of areas where the services are either now, or will be, taking corrective measures. However, there are some areas where the Department of Defense believes your report should be modified.

The Department's comments are directed towards each of the sixteen specific recommendations in the report and are reflected in enclosure 1. Additional details concerning the report were provided to your representatives during their meeting with representatives of the Office of the Secretary of Defense and the military services on February 8, 1981.

Based upon several of your recommendations, the military departments have been directed to reemphasize certain guidance now contained in published instructions. A copy of this direction is enclosed (enclosure 2).

The opportunity to comment on the draft report is appreciated. It is requested that you give consideration to these comments when you prepare your final report.

Sincerely,

James N. Juliana

James N. Juliana
Acting Assistant Secretary of Defense
(Manpower, Reserve Affairs & Logistics)

Enclosures 2

DOD COMMENTS ON GAO REPORT CODE 945457 - OSD CASE #5877

RECOMMENDATION 1 (Page 36): [See GAO note 1, p. 54.]

That the Secretary of Defense revise DOD's inventory, occupancy, and utilization reporting requirements so that accurate information will be provided to UEPH managers.

RESPONSE:

Accurate information of sufficient detail is required for effective UEPH management. OSDINST 4165.47 of 15 Jul 1981 requires the services to report inventory, occupancy, and utilization data. The quality of the data should improve as the services gain experience with the report. Additionally, modifications will be made, as appropriate to improve the accuracy of the report and the usefulness to UEPH managers at the installation and mid management levels. The Housing Management Systems Office in conjunction with the service representatives will revise the report format to improve it.

RECOMMENDATION 2 (Page 37):

That the Secretary of Defense require the services to implement the reporting requirements in a timely manner.

RESPONSE:

The Department of Defense will stress to the services the need for timely reporting. However, we expect timeliness to improve as the services gain experience with the report.

RECOMMENDATION 3 (Page 37):

That the Secretary of Defense redirect the services to adopt and implement DOD's minimum standards of adequacy for assigning personnel to existing adequate housing.

RESPONSE:

Although the services have adopted the OSD minimum standards of adequacy for assignment of personnel where operational or training requirements are not adversely effected, they will be reminded of the existing policy. [See GAO note 2, p. 54.]

RECOMMENDATION 4 (Page 37):

That the Secretary of Defense direct the services to explore the opportunities to use underutilized UEPH space of other services when appropriate and to cooperate with services seeking to use those assets.

RESPONSE:

The DoD will emphasize this point in the next revision of OSDINST 4165.47. During 1982 we will also review the master milestone schedule of Joint Interservice Resource Study Group (JIRSG) efforts concerning unaccompanied personnel housing. Based on the results of our review we will (a) expedite JIRSG housing studies which are currently in process or scheduled for review, and (b) require an update and review of studies which have been completed.

RECOMMENDATION 5 (Page 37):

That the Secretary of Defense direct the services to closely review installations programming of construction and modernization projects to identify and take advantage of opportunities to reduce off-base housing costs.

RESPONSE:

Concur.

RECOMMENDATION 6 (Page 37):

That the Secretary of Defense direct the services to discontinue use of unit integrity in making room assignments where such assignments are resulting in underutilized housing and eligible personnel are living off-base at additional cost to the Government.

RESPONSE:

Concur with minimizing the use of unit integrity in order to improve utilization of housing and reduce costs to the Government. However there are instances where operational needs justify its use.

RECOMMENDATION 7 (Page 53):

That the Secretary of Defense direct the services to throughly review the UEPH deficits upon which current programmed and funded UEPH construction projects are based and cancel, when practical, unjustified projects; in particular the justification for projects at Redstone Arsenal, Charleston Naval Station and Norfolk Naval Air Station.

RESPONSE:

The services will continue to throughly review UPH construction programs on an annual basis as a part of the budgetary process and again prior to the execution of authorized construction. However, the services will be asked to further review the three specific projects addressed in the report.

RECOMMENDATION 8 (Page 54):

That the Secretary of Defense direct the services to defer programming additional UEPH facilities until an accurate UEPH inventory is established.

RESPONSE:

DoD intends to proceed only where projects are adequately justified. To do otherwise would be damaging to our efforts to improve enlisted personnel living standards.

RECOMMENDATION 9 (Page 54):

That the Secretary of Defense direct the services to verify the personnel strengths upon which UEPH requirements are based.

RESPONSE:

Such verification is already required by DODINST 4165.54. We have emphasized the need for the services to be more accurate in developing the data to support these UEPH requirements.

RECOMMENDATION 10 (Page 54):

That the Secretary of Defense direct the services to measure UEPH assets based on maximum capacities under DOD's minimum standards of adequacy or new construction criteria as appropriate.

RESPONSE:

The services have been directed to report UEPH assets under DOD minimum standards of adequacy in DOD Directive 4165.47. Once this report system is fully implemented, the services will measure their assets accordingly.

RECOMMENDATION 11 (Page 54):

That the Secretary of Defense direct the services to use underutilized space at nearby installations as a means of meeting UEPH needs.

RESPONSE:

The DoD will emphasize this point in the next revision of DODINST 4165.54. During 1982 we also will review the master milestone schedule of Joint Interservice Resource Study Group (JIRSG) efforts concerning unaccompanied personnel housing. Based on the results of our review we will (a) expedite JIRSG housing studies which are currently in process or scheduled for review, and (b) require an update and review of studies which have been completed.

RECOMMENDATION 12 (Page 54):

That the Secretary of Defense direct the Navy to program UEPH assets for only the portion of ships' crews who are not to be housed in berthing barges during overhaul periods.

RESPONSE:

Non-Concur. Barges should not be counted as UEPH. They are temporary facilities which are moved to locations of need, e.g. civilian shipyards

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where there are no UEPH facilities, or at Navy shipyards where there is a deficit of UEPH space. Also, during conflicts they can be moved to forward areas.

RECOMMENDATION 13 (Page 54):

That the Secretary of Defense direct the Navy to correct its system for determining UEPH requirements to eliminate consideration of personnel living on ships.

RESPONSE:

Department of Defense Directive 4165.54 requires such determination. The Navy will be directed to survey their system and take corrective actions as necessary.

RECOMMENDATIONS 14 (Page 63):

That the Secretary of Defense not approve Air Force UEPH modernization projects involving the addition of private or semi-private bathrooms to UEPH facilities which already meet DOD's minimum standards of adequacy and modernization criteria.

RESPONSE:

Non-Concur. The Secretary of Defense has established minimum standards of adequacy to ensure that enlisted personnel have at least minimum living conditions. The Services are allowed to exceed those minimum standards.

RECOMMENDATION 15 (Page 63):

That the Secretary of Defense assure the services consider the additional off-base housing costs associated with modernization projects in the analyses of such projects.

RESPONSE:

Concur that off-base housing costs (i.e. payment of housing allowance or leasing) should be considered in the economic analysis conducted to determine the best alternative. The services will be reminded to ensure that these factors are considered.

RECOMMENDATION 16 (Page 63):

That the Secretary of Defense limit UEPH modernization projects to those faciliites that meet or will meet, as a result of the modernization, DOD's minimum standards of adequacy.

RESPONSE:

While the Secretary of Defense's goal is that all enlisted personnel should be adequately housed, it will be several years before these standards can be totally met. Interim solutions with minimum funds that provide

considerable improvement to the living conditions of enlisted personnel are preferred to continued use of grossly inadequate facilities.

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ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

MANPOWER, RESERVE AFFAIRS AND LOGISTICS

24 FEB 1982

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE ARMY (IL&FM)
ASSISTANT SECRETARY OF THE NAVY (S&L)
ASSISTANT SECRETARY OF THE AIR FORCE (MRA&I)

SUBJECT: GAO Draft Report dated January 19, 1982 "DoD's Unaccompanied Enlisted Personnel Housing Program -- Improved Living Conditions and Reduced Cost are Possible" Code 945457 (OSD Case #5877)

The subject General Accounting Office (GAO) report cites several examples where the services have failed to comply with existing policy, manage unaccompanied personnel housing effectively, assign personnel at minimum standards of adequacy, cooperate with each other so that excess space at adjacent bases may be utilized in lieu of nongovernment housing, and in particular, develop and submit the necessary reports on inventory and utilization.

My representatives met with your representatives on February 5, 1982 and again on February 8, 1982 with representatives of the GAO. During those meetings, general agreement was reached which resulted in at least qualified concurrence with most of the sixteen recommendations made by the GAO in their draft report.

I have enclosed a list of specific corrective actions you should take. Please advise this office of the status of the corrective actions by April 23, 1982.

James N. Juliana
Acting Assistant Secretary of Defense
(Manpower, Reserve Affairs & Logistics)

Enclosure

Corrective Action Required
to
Improve Unaccompanied
Enlisted Personnel Housing Management

1. Comply with reporting requirements of OSDINST 4165.47 of July 15, 1981. To date only a partial submission by the Air Force has been made. Your initial submission is required no later than May 1, 1982.

2. The report noted that the services claimed to have adopted the OSD minimum standards of adequacy for assignment of personnel but then cited instances where the policy has not been implemented. I am committed to improving the living and working conditions of our military personnel and consider adequate quarters essential. You should limit assignment of enlisted personnel to substandard quarters to those situations where it is absolutely essential. In those instances where it is considered essential, priority is to be given to upgrading the facilities to minimum standards as soon as possible.

3. The report notes instances where enlisted personnel were residing in contract housing or where new construction was being programmed although adjacent bases had vacant adequate housing. You should ensure that your policies and regulations require cooperation with adjacent bases to both seek and furnish space when appropriate. Maximum use of the Defense Retail Interservice Support (DRIS) program is encouraged.

4. The report cites instances where both modernization and new construction were required to satisfy requirements and the services programmed the modernization ahead of the new construction. This was more costly than necessary. Had the new construction been programmed first, the personnel being displaced by the modernization project could have been housed in the new facilities rather than being forced to live off base and receiving housing allowances.

In those instances where both modernization and new construction are required, you should program the new construction first, if feasible, to provide the most cost effective method of meeting your requirements.

5. The report cites the use of "unit integrity" in assignment of quarters as contributing to underutilization of assets. You are to ensure that assignment of personnel to quarters under a unit integrity concept does not result in unnecessary underutilization of assets and increased costs.

6. The report cites instances at the Redstone Arsenal, Charleston Naval Station and the Norfolk Naval Air Station where the GAO feels unjustified projects are being programmed. You are reminded that projects must be thoroughly reviewed and the supporting personnel data verified before including them in any budget request. In addition, it is required that you again verify these data prior to execution of authorized projects. Your confirmation of the requirements for the specific projects addressed above is required by March 19, 1982.

7. The report indicates that the Navy's system for projecting enlisted housing requirements results in overstated requirements due to questionable average marital factors which are applied to ship crews.

You should review the projection procedures to ensure the most accurate projections are being forecasted.

8. It is my intention that all costs associated with arriving at a decision among alternatives be considered. Part of the consideration in modernization projects are the additional operation and maintenance and leasing allowance costs incurred when occupants must be temporarily relocated pending the modernization of their quarters.

You are to ensure that these significant items are properly addressed when economic analyses are made.

GAO note 1: Page numbers refer to draft report and may not agree with the pages in the final report.

2: In a February 8, 1982, meeting with DOD representatives, DOD said that it would not require the Air Force to reduce its minimum standards of adequacy to the lower DOD standards.

(945457)